AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

15. (Currently Amended) A method for atomizing metal melts, comprising the steps of

providing a tundish in which a liquid metal melt is kept in a molten state, and which has an outlet opening, a bottom inner surface, and an immersion tube;

introducing the liquid metal melt, through an annular gap formed between the bottom inner surface of said tundish and said immersion tube, into the outlet opening; and

ejecting through a Laval nozzle arranged concentrically with said outlet opening a propellant gas having a temperature between 250°C and 1300°C, and a supercritical pressure of between 2 and 30 bars, wherein the propellant gas is contacted with the liquid metal melt at a ~~speed exceeding~~ supersonic speed, with a radial outwardly directed component.

16. (Original) A method according to claim 15, wherein the propellant gas is directed by a deflector body.

17. (Currently Amended) A method according to claim 15, further characterized in that a lance comprising the Laval nozzle for the propellant gas is conducted concentrically in a tube, forming an annular space between said lance and said tube, and that <u>one or more selected from the group consisting of</u> reactive gases ~~such as, e.g., CO, H_2, O_2 or H_2O vapor~~, ~~and/or~~ inert

gases ~~such as, e.g., N_2 or Ar~~, and~~/or~~ carbides ~~such as, *e.g.*, WC, TiC or VC~~, ~~are~~ is sucked in through said annular space.

18. (Currently Amended) A method according to claim 16, further characterized in that a lance comprising the Laval nozzle for the propellant gas is conducted concentrically in a tube, forming an annular space between said lance and said tube, and that one or more selected from the group consisting of reactive gases ~~such as, *e.g.*, CO, H_2, O_2 or H_2O vapor~~, ~~and/or~~ inert gases ~~such as, e.g., N_2 or Ar~~, and~~/or~~ carbides ~~such as, *e.g.*, WC, TiC or VC~~, ~~are~~ is sucked in through said annular space.

19. (Currently Amended)A method according to claim 17, characterized in that reactive metal powders or additives ~~such as, *e.g.*, SiC, Al_2O_3 or Y_2O_3~~ are charged into the gas flow sucked into said annular space.

20. (Original) A method according to claim 15, further characterized in that the propellant gas is heated in a heat exchanger surrounding the ejected comminuted particles of the liquid metal.

21. (Original) A method according to claim 16, further characterized in that the propellant gas is heated in a heat exchanger surrounding the ejected comminuted particles of the liquid metal.

22. (Original) A method according to claim 15, further characterized in that extremely fine solidifying particles of the comminuted liquid metal, which move into a cooling chamber, are sucked off below the entry point of the liquid metal melt, and said extremely fine particles are discharged from said cooling chamber through a sluice.

23. (Original) A method according to claim 16, further characterized in that extremely fine solidifying particles of the comminuted liquid metal, which move into a cooling chamber, are sucked off below the entry point of the liquid metal melt, and said extremely fine particles are discharged from said cooling chamber through a sluice.

24. (Original) A method according to claim 15, further characterized in that a pressure of 1.5 to 25 bars is maintained within the tundish.

25. (Original) A method according to claim 16, further characterized in that a pressure of 1.5 to 25 bars is maintained within the tundish.

26. (Original) A method according to claim 15, further characterized in that a pressure of 1.5 to 10 bars is maintained within a cooling chamber.

27. (Original) A method according to claim 16, further characterized in that a pressure of 1.5 to 10 bars is maintained within a cooling chamber.

28. (Original) A device for atomizing metal melts, comprising:

a tundish (1) containing a liquid metal melt (2) and having an outlet opening for the liquid metal melt, and an interior surface;

an immersion tube (4) immersed in said liquid metal melt (2), forming an annular gap between said immersion tube (4) and said interior surface of the tundish (1), said annular gap surrounding said outlet opening for the liquid metal melt; and

a height-adjustable lance (7) with a Laval nozzle for ejecting a propellant gas.

29. (Original) A device according to claim 28, further comprising a deflector body (10) arranged in a height-adjustable manner in the widening opening region of the Laval nozzle (9) or following thereupon as viewed in the flow direction, wherein the clear cross section between the nozzle (9) and the deflector body (10) is designed to increase in the axial direction towards the outlet end and to be larger than the narrowest cross section of the Laval nozzle (9).

30. (Original) A device according to claim 28, further characterized in that the lance (7) opens in the outlet opening of the tundish (1) below the lower edge of the immersion tube (4).

31. (Original) A device according to claim 29, further characterized in that the lance (7) opens in the outlet opening of the tundish (1) below the lower edge of the immersion tube (4).

32. (Original) A device according to claim 28, further characterized in that the outer diameter of the lance (7) is smaller than the clear diameter of the immersion tube (4);

the lance (7) is sealingly guided through a lid (6) of the immersion tube (4); and

a duct (24) opens into the space of the immersion tube (4) surrounding the lance (7) for the supply of gases and/or reactive metal powders and/or additives.

33. (Original) A device according to claim 29, further characterized in that the outer diameter of the lance (7) is smaller than the clear diameter of the immersion tube (4);

the lance (7) is sealingly guided through a lid (6) of the immersion tube (4); and

a duct (24) opens into the space of the immersion tube (4) surrounding the lance (7) for the supply of gases and/or reactive metal powders and/or additives.

34. (Original) A device according to claim 29, further characterized in that the deflector body (10) is designed as a cone having deflector surfaces provided on its jacket.

35. (Original) A device according to claim 34, further characterized in that the deflector surfaces extend in a curve shaped in an S-like manner, and, in the peripheral direction, terminate so as to be directed at the tangent of the base circle of the conical body, each under the same angle.

36. (Original) A device for atomizing metal melts, comprising:

a tundish (1) containing a liquid metal melt (2) and having an outlet opening for the liquid metal melt, and an interior surface;

an immersion tube (4) immersed in said liquid metal melt (2), forming an annular gap between said immersion tube (4) and said interior surface of the tundish (1), said annular gap also surrounding said outlet opening for the liquid metal melt;

a height-adjustable lance (7) with a Laval nozzle for ejecting a propellant gas, characterized in that the lance (7) opens in the outlet opening of the tundish (1) below the lower edge of the immersion tube, and the outer diameter of the lance (7) is smaller than the clear

diameter of the immersion tube (4), and the lance (7) is sealingly guided through a lid (6) of the immersion tube (4);

a deflector body (10) arranged in a height-adjustable manner in the widening opening region of the Laval nozzle (9) or following thereupon as viewed in the flow direction, wherein the clear cross section between the nozzle (9) and the deflector body (10) is designed to increase in the axial direction towards the outlet end and to be larger than the narrowest cross section of the Laval nozzle (9), characterized in that the deflector body (10) is designed as a cone having deflector surfaces provided on its jacket, and the deflector surfaces extend in a curve shaped in an S-like manner, and, in the peripheral direction, terminate so as to be directed at the tangent of the base circle of the conical body, each under the same angle; and

a duct (24) opening into the space of the immersion tube (4) surrounding the lance (7) for the supply of gases and/or reactive metal powders and/or additives.

37. (New) A method according to claim 17, wherein said reactive gas is one or more selected from the group consisting of CO, H_2, O_2 and H_2O vapor.

38. (New) A method according to claim 17, wherein said inert gas is one or more selected from the group consisting of N_2 and Ar.

39. (New) A method according to claim 17, wherein said carbide is one or more selected from the group consisting of WC, TiC and VC.

40. (New) A method according to claim 18, wherein said reactive gas is one or more selected from the group consisting of CO, H_2, O_2 and H_2O vapor.

41. (New) A method according to claim 18, wherein said inert gas is one or more selected from the group consisting of N_2 and Ar.

42. (New) A method according to claim 18, wherein said carbide is one or more selected from the group consisting of WC, TiC and VC.

43. (New) A method according to claim 19, wherein said reactive metal powder or additive is one or more selected from the group consisting of SiC, Al_2O_3 and Y_2O_3.